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BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK: Package No. 02 (Package Consists of 05 Works Rs. 1000.00 Lakhs)

1. Improvement of roads, drains and other allied works at Sindhi College road and surrounding areas in ward No. 09 Kempapura.
2. Improvement of roads, drains and other allied works at F block Sahakaranagara and surrounding areas in ward No. 09 Hebbala Kempapura.
3. Improvement of roads, drains and other allied works at Sanjeevininagar and surrounding areas in ward No. 09 Hebbala Kempapura.
4. Improvement of roads, drains and other allied works at Cauvery Enclave, Sampige road, Thindlu village, Indian Express layout, Dhanalakshmi layout and surrounding areas in ward No. 10 Byatarayanapura.
5. Improvement of roads, drains and other allied works at Byatarayanapura Village and surrounding areas in ward No. 10 Byatarayanapura.

ESTIMATE ABSTRACT

Estimate Cost : Rs.1000.00 Lakhs

SL NO	Description	UNIT	Qty	RATE	AMOUNT
1	Removing and resetting of footpath slab (Approved arrival rate)	Sqm	12572.58	235.00	2954556.30
2	Removing and resetting of kerb stone (Approved arrival rate).	Rmtr	4713.00	118.00	556134.00
3	Earth work excavation by manual means for drains, canals, waste weir, draft, approach channels, key trenches, foundation of Buildings & bridges and such simillar works in all kinds of soils, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. In all kinds of soils Depth upto 1.5 m[PWD SR 2023-24/ Volume-1/ Chapter-1/P.NO-5/ Item no:-1.4.1]	Cum	6311.10	266.20	1680014.82

SL NO	Description	UNIT	Qty	RATE	AMOUNT
4	Providing and laying in Reinforced cement concrete for all Basement & surface level works, return walls, retaining walls, sunken floors etc. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately)M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates(Item No 2.3.2 (Vol-I) Page No 16,of PWD SR 2023-24	Cum	96.70	7840.80	758205.36
5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregates (Item No 2.1.4 (Vol-I) Page No 15,2023-24	Cum	586.47	6838.70	4010692.39
6	Supplying, fitting and placing TMT FE 550 / 550D Steel Reinforcement including cost of all materials, machinery, labour, cleaning, straightening, cutting, bending, hooking, laping/welding joints, tying with binding wire / soft annealed steel wire and other ancilary operations complete as per drawing and technical specification. All other type of structures (PWD SR 2023-24 Vol -I Pg 18 item no 2.11 (h))	tonne	13.31	86912.10	1156800.05

	Description	UNIT	Qty	RATE	AMOUNT
7	Providing and laying 100mm thick pre-cast cover slabs over Road side drains / utility ducts / Rain water harvesting pit of width not exceeding 1000 mm using M20 concrete reinforced with TMT bars Fe 550 @ 6kg/m2, slabs jointed in CM 1:3 proportion and nicely finished Including providing holes in the Cover slabs wherever necessary for easy drain age of surface waterincluding of labour, materials, scaffolding, usage of machinery, curing, lead and lift charges etc, Complete.[PWD SR 2023-24/ Volume-2/ Chapter-2/P.NO-177/ Item no:-17.14]	Sqm	3661.02	1287.00	4711732.74
	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)	Sqm	387.15	5037.00	1950074.55
9	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x150x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. (PWD SR 2023-24 Vol - II Pg 17 item no 6.33)	Sqm	1707.50	1354.10	2312125.75
10	Providing ruled pointing to coursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as per specification.. Item No. 21.10 Page No. 214, Vol - II PWD SR 2023-24	Sqm	2828.85	328.90	930408.77

SL NO	Description	UNIT	Qty	RATE	AMOUNT
11	Providing and laying in position Cement Concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:2:4 Using 20 mm nominal size graded crushed coarse aggregates[PWD SR 2023-24/ Volume-1/ Chapter-2/P.NO-15/ Item no:-2.1.6]	Cum	293.54	6867.30	2015827.24
12	Providing and laying in position Cement Concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications.M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates[PWD SR 2023-24/ Volume-1/ Chapter-2/P.NO-16/ Item no:-2.4.2]	Cum	70.46	7650.83	539077.48
13	Providing and fixing pre cast solid cement concrete Kerb Stones made out of M20 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading, unloading, lead and lift transportion etc., complete as directed by the Engineer in charge of the work(from finish concrete and no painting to be done)(Data Rate)	Nos	2749.78	507.00	1394138.46
14	Painting Two Coats on New Concrete Surfaces Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concretesurfaces. MORTH Chapter 803 (PWD SR 2023-24 Vol III Pg no 66 Item No 8.10)	Sqm	2082.50	119.90	249691.75

	Description	UNIT	Qty	RATE	AMOUNT
15	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 m3 in volume and stock piling at designated locations and disposal of dismantled materials and stacking serviceable and unserviceable materials separately. (PWD SR 2023-24 Vol -III P.No.12 - I.No.2.19)	Cum	2306.30	619.30	1428291.59
16	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. (PWD SR 2023-24 Vol I Pg no 8 Item No 1.12)	Cum	3103.44	104.50	324309.48
17	Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 14:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 140 kg/ m3 , optimum moisture content to be determined during trial length construction, concrete strength not to be less than 7 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 t vibratory roller, finishing and curing[PWD SR 2023-24/ Volume-3/ Chapter-6/P.NO-49/ Item no:-6.1]	Cum	466.82	5412.00	2526429.84
18	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. (PWD SR 2023-24 Vol III Pg no 26 Item No 4.17)	Cum	1348.63	2814.90	3796258.59

SL NO	Description	UNIT	Qty	RATE	AMOUNT
19	Providing and laying in position Cement Concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators,including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:5:10 Using 40 mm nominal size graded crushed coarse aggregates (PWD SR 2023-24 Vol-I Pg no 15 Item No 2.1.1)	Cum	752.55	5871.80	4418823.09
20	Providing and constructing un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383:2016:, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including construction joints, primer, sealant, curing of concrete slabs for 14-days, and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead, lifts, loading & unloading charges, cost and conveyance of all materials, labour, equipments etc., complete. as per the directions of the Engineer-in-charge of the work.(PWD SR 2023-24 Vol III Pg no 149 Item No 16.28)	Cum	1200.14	7429.40	8916320.12
21	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70 kg/m2 using mechanical means MORTH Specification No. 502 (PWD SR 2023-24 Vol III Pg no 31 Item No 5.1 A (i))	Sqm	15699.30	45.10	708038.43

	Description	UNIT	Qty	RATE	AMOUNT
	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects. (PWD SR 2023-24 Vol III Pg no 35 Item No 5.12 (C))	Cum	805.53	10393.90	8372598.27
	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.20 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 2023-24 Vol III Pg no 31 Item No 5.3 (i))	Sqm	46314.50	13.20	611351.40
24	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 2023-24 Vol III Pg no 38 Item No 5.16 (C))	Cum	1853.68	12049.40	22335731.79
25	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 2023-24 Vol III Pg no 67 Item No 8.15)	Sqm	1729.85	583.00	1008502.55
26	Unload ing, Loading & Carriage of MaterialsLoading and Unloading of Stone Boulder/Stone aggregates/Sand/Kankar/Moorum. (Tipper 5.5 m3)[PWD SR 2023-24/ Volume-3/ Chapter-1/P.NO-5/ Item no:-1.1 a]	Cum	10845.17	148.50	1610507.75

SL NO	Description	UNIT	Qty	RATE	AMOUNT
27	Cost of Haulage Excluding Loading and Unloading,Taking output 10 t load and lead 10 km = 100 t.km[PWD SR 2023-24/ Volume-3/ Chapter-1/P.NO-3/ Item no:-1.4 iii A]	t.km	13881.83	198.00	2748602.34
				Sub Total:	**84025244.89**
				GST 18%:	**15124544.08**
				PMC 1%	**840252.45**
				Misc. & Rounding off	**9958.59**
				Total Rs:	**100000000.00**

ADMINISTRATIVE SANCTION

Accorded for Rs. 10.00 Crores only

Head of A/c. P3877

Div. Ref. No. 78/23-24 Date. 7/03/24

AE/DM EE(BTP) BBMP

Technical Sanction

Accorded for Rs 10.00 Crores only

Head of A/C P3877

CER NO 22 Dt: 18/3/24

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